



Applicant : Paulraj et al.  
Appl. No. : 09/464,372  
Filed : 12/15/99  
Title : Method and Wireless System using Multiple Antennas and Adaptive Control for Maximizing a Communication Parameter  
Grp./A.U. : 2734  
Examiner : Jiang, L.  
Docket No. : GWI-102

Honorable Commissioner for Patents  
Washington DC 20231

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## RESPONSE TO ACTION

I HEREBY CERTIFY THAT THIS CORRESPONDENCE IS BEING DEPOSITED WITH THE UNITED STATES POSTAL SERVICE AS FIRST CLASS MAIL ON THE DATE INDICATED BELOW AND IS ADDRESSED TO: COMMISSIONER OF PATENTS AND TRADEMARKS, WASHINGTON, DC 20231. DATE OF DEPOSIT 8/21/01

SIGNED Monica Turner DATE 8/21/01  
NAME OF PERSON MAKING DEPOSIT

Sir:

In response to the Office action of 2/14/01, please reconsider the above-identified application in view of the following amendments and/or remarks.

### AMENDMENT 1.312

#### In the Specification:

Please replace the paragraph beginning at line 7 of page 4 with the following rewritten paragraph:

*B,*  
U.S. Pat. Nos. 5,592,490 to Barratt et al., 5,828,658 to Ottersten et al., and 5,642,353 Roy III, teach about spectrally efficient high capacity wireless communication systems using multiple antennas at the transmitter; here a Base Transceiver Station (BTS) for Space Division Multiple Access (SDMA). In these systems the users or receive units have to be sufficiently separated in space and the BTS uses its transmit antennas to form a beam directed towards each receive unit. The transmitter needs to know the channel state information such as "spatial signatures" prior to transmission in order to form the beams correctly. In this case spatial multiplexing means that data streams are transmitted simultaneously to multiple users who are sufficiently spatially separated.